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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/805,410

03/22/2004

Akihito Okura

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

PHUNG, LUAT

ART UNIT

PAPER NUMBER

2609

NOTIFICATION DATE

DELIVERY MODE

08/10/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary

Application No.

10/805,410

Applicant(s)

OKURA ET AL.

Examiner

Luat Phung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :22 March 2004, 13 September 2005, 20 September 2006, 12 April 2007.

DETAILED ACTION

The pending claims 1-8 are presented for examination.

Claims 1-8 are rejected.

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by Colley, et al (US 6,650,644).

Regarding claim 6, Colley discloses a router in an IP network (background, col. 1, lines 56-58), comprising a control and relay unit (Fig. 1, elements 113, 119, 127, 135) configured to control and route at the router in accordance with first bits for controlling the router stored in a first area assigned within an IP-header field of an IP packet (col. 4, line 65 to col. 5, line 1; ISC bits indicating service class of packet per col. 5, lines 3-9, lines 33-35, line 46), and second bits for routing at the router stored in a second area also assigned within the IP-header field of the IP packet (DP bit indicating whether to route the packet per col. 5, lines 3-6).

Inventorship

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5 and 7-8 are rejected under U.S.C. 103(a) as being unpatentable over Colley, et al (US 6,650,644) in view of Beshai, et al (US Pub. 2002/0131363).

Regarding claims 7-8, Colley discloses a router comprising a setting unit configured to set, based on a type of the IP packet, a router-control class to the first bits and a routing class to the second bits (col. 4, line 65 to col. 5, line 1; ISC bits and DP bits per col. 5, lines 3-4), as recited in claim 7. Colley further discloses all of the subject matter as recited in paragraph 3 of this office action except:

The router as claimed in claim 6, which is arranged at a boundary of the IP network, as recited in claim 7;

further comprising:

a traffic-measuring unit configured to measure volume of traffic flowing into the router; and

a traffic-condition reporting unit, configured to report the measured volume as a

traffic report to a QoS controller connected to the IP network, as recited in claim 8.

Beshai from the same or similar fields of endeavor discloses a router arranged at a boundary of an IP network (node in Fig. 1, element 22; para. 28, line 1)

comprising:

a traffic-measuring unit (Fig. 1, element 28) configured to measure volume of traffic flowing into the router; (para. 51, lines 23-24; para. 87, lines 5-7) and

a traffic-condition reporting unit (Fig. 1, element 28), configured to report the measured volume as a traffic report to a QoS controller connected to the IP network. (para. 51, lines 26-30).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the router using router-control and routing bits of Colley with the router with traffic measuring and reporting of Beshai by adding the measurements capability on the router of Colley and placing it at the edge of the network. The motivation for such a combination would have been to refine the routing features across the network.

Regarding claim 1, Colley discloses a QoS controller, in an IP network having one or more routers (background, col. 1, lines 56-58), comprising:

a storing unit configured to assign a first bit area and a second bit area within a field in an IP header of an IP packet (col. 4, line 65 to col. 5, line 1; col. 6, lines 25-28), and store first bits for controlling the routers into the first bit area (ISC bits indicating

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service class of packet per col. 5, lines 3-9, lines 33-35, line 46) and second bits for routing at the routers into the second bit area; (DP bit indicating whether to route the packet per col. 5, lines 3-6)

Colley discloses all of the subject matter except a reporting unit configured to report to the routers the first bits and the second bits stored by the storing unit.

Beshai from the same or similar fields of endeavor discloses a QoS controller comprising a reporting unit (Fig. 1, element 26) configured to report to the routers (Fig. 1, elements 22) traffic data and state information (Fig. 1, lines from elements 22 to 26; para. 13, 15).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the system being able to store router-control and routing bits of Colley with the reporting capability of Beshai by having the system reporting these types of bits to the routers in the network. The motivation for such a combination would have been to refine the routing features across the network.

Claim 5 is a method claim corresponding to apparatus claim1, and is therefore rejected under the same reason set forth in the rejection of claim1.

Claims 2-4 are rejected under U.S.C. 103(a) as being unpatentable over Colley, et al (US 6,650,644) in view of Beshai, et al (US Pub. 2002/0131363).

Regarding claims 2-4, Colley discloses a QoS controller, wherein the storing unit further comprises a storing-control unit (Fig. 1, element 26) configured to change a ratio of the first bit area to the second bit area so as to store

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the first bits into the first bit area and the second bits into the second bit area. (col. 5, lines 57-67; col. 5, lines 1-12, lines 46-51), as recited in claim 2;

further comprising a database unit, wherein the database unit represents a first bit sequence as a router-control class for controlling the routers, and a second bit sequence as a routing class for routing at the routers; (col. 5, lines 13-14; Fig. 4, element 401) and

stores, in accordance with a type of the IP packet, a relationship between the router-control class and the routing class (Table 4), as recited in claim 3;

a corresponding-relationship updating unit configured to change the relationship, (Fig. 1, line "Traffic Data" from element 22 to element 26) stored at the database unit, between the router-control class and the routing class, based on the monitored traffic condition (col. 5, lines 7-12), as recited in claim 4.

Colley discloses all of the subject matter except:

wherein the reporting unit reports to the routers the relationship, stored at the database unit, between the router-control class and the routing class, as recited in claim 3;

a traffic-monitoring unit configured to monitor traffic conditions at the routers;

wherein the reporting unit reports to the routers the relationship changed by the corresponding-relationship updating unit, as recited in claim 4.

Beshai from the same or similar fields of endeavor discloses:

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wherein the reporting unit reports to the routers the relationship, stored at the database unit, between the router-control class and the routing class (para. 16-19; para. 26, lines 1-5);

a traffic-monitoring unit configured to monitor traffic conditions at the routers (Fig. 1, element 26; line "Traffic Data" from element 22);

wherein the reporting unit reports to the routers the relationship changed by the corresponding-relationship updating unit. (para. 16-19; para. 26, lines 1-5).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the system being able to manage router-control and routing bits of Colley with the reporting capability of Beshai by having the system reporting updates related to these types of bits to the routers in the network. The motivation for such a combination would have been to refine the routing features across the network.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following documents are cited to show system pertinent to applicant's invention.

US-2002/0044553 A1	04-2002	Chakravorty, Sham
US-2002/0071434 A1	06-2002	Furukawa, Minoru

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US-2002/0114274 A1	08-2002	Sturges et al.
US-2002/0191622 A1	12-2002	Zdan, Michael A.
US-2003/0039210 A1	02-2003	JIN et al.
US-2004/0190527 A1	09-2004	Okura et al.
US-2003/0142681 A1	07-2003	Chen et al.
US-2003/0191853 A1	10-2003	Ono, Yoshitsugu
US-6,671,277 B1	12-2003	Sugai et al.
US-6,970,930 B1	11-2005	Donovan, Steven R.

EP 1463248 A2	09-2004	European Patent	OKURA et al.
EP 1783969 A1	05-2007	European Patent	OKURA et al.

Francis, Paul; A Near-Term Architecture for Deploying Pip, IEEE Network, May 1993

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luat Phung whose telephone number is 571-270-3126. The examiner can normally be reached on Monday to Friday, 7:30 AM to 5 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on 571-272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LP



DANG T. TON
SUPERVISORY PATENT EXAMINER